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## *Evaluating corrosion inhibition offered by NokStop VCI Emitter*

**Background:** NokStop VCI powder emitter was submitted to Cortec for Corrosion testing. A corrosion inhibition evaluation and chemical analysis is sought.

**Purpose:** Evaluate the corrosion inhibition performance of submitted emitter.

**Method:** VIA Test  
Nitrite Test  
FT-IR Analysis

**Materials:** VIA Test Kit  
EM Quant Nitrite/Nitrate Test strips (Lot # OC404490, Exp 9/07)  
Perkin Elmer Paragon 1000 FT-IR Spectrometer

**Procedure:** The above tests were performed according to standard procedures for each.

**Results:**

VIA Test

Material	Plug
NokStop VCI Powder emitter	Grade 1

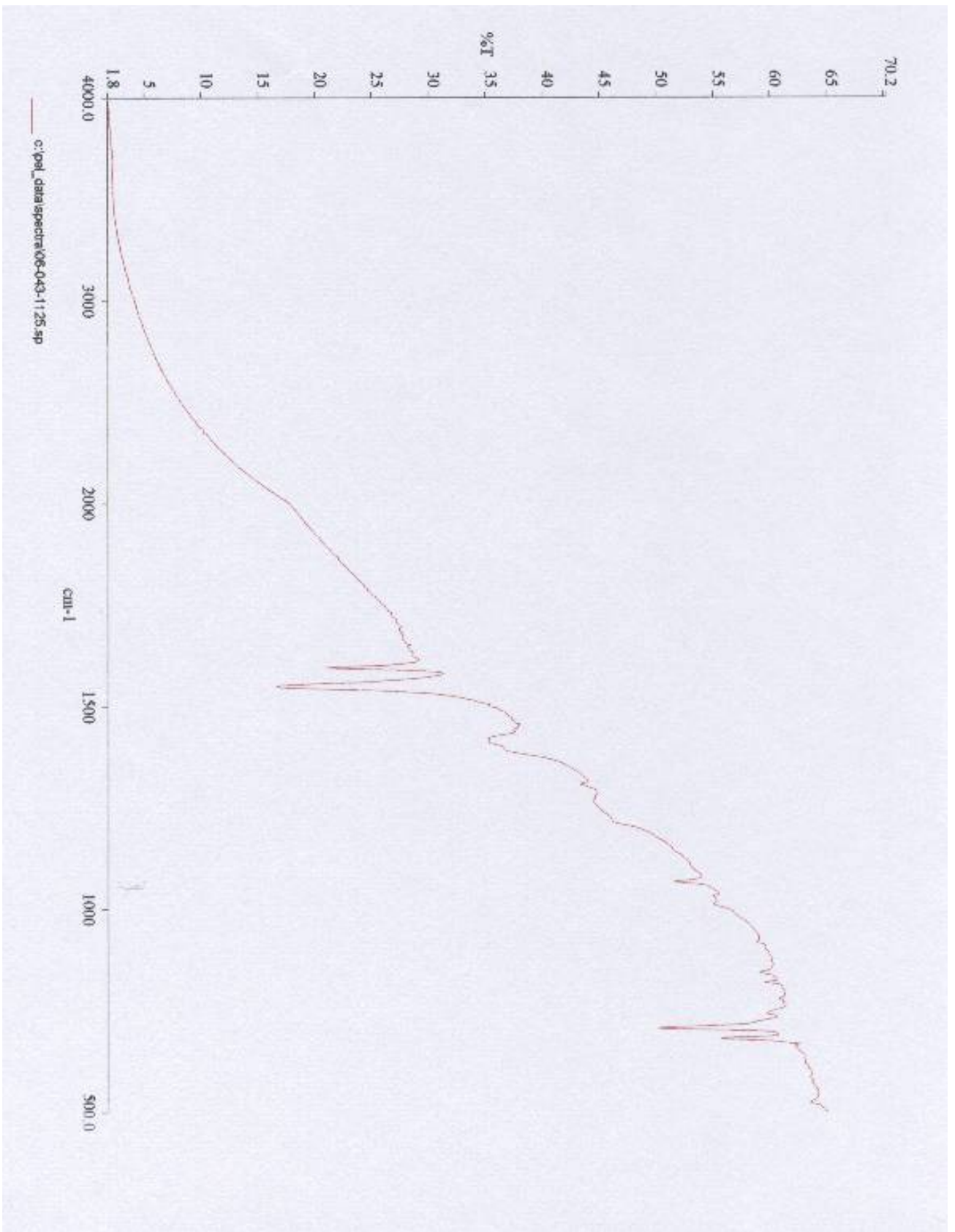
Nitrite test: NokStop VCI Powder emitter is heavily nitrite based.

**Conclusion:**

- (1) NokStop VCI Powder emitter fails to provide sufficient vapor phase corrosion inhibition.
- (2) FT-IR analysis shows the presence of Sodium benzoate.
- (3) Chemical composition of pellet is most likely a combination of sodium benzoate and sodium nitrite.

**Project #:** 06-043-1125





### VIA Test Grades (Grade 2 or 3 are passing)

- Grade 0: Blind test  
No corrosion inhibiting effect
- Grade 1: Blind test  
Minute corrosion inhibiting effect
- Grade 2: Blind test  
Medium corrosion inhibiting effect
- Grade 3: Blind test  
Good corrosion inhibiting effect

